

Message Text

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PAGE 01 LONDON 05022 251859Z
ACTION OES-06

INFO OCT-01 EUR-12 EA-07 ISO-00 ACDA-07 SS-15 NSC-05
EB-08 TRSE-00 NRC-05 FEAE-00 CIAE-00 INR-07
NSAE-00 L-03 IGA-02 DODE-00 PM-04 /082 W
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P R 251834Z MAR 77
FM AMEMBASSY LONDON
TO SECSTATE WASHDC PRIORITY 1990
ERDA HQ WASHDC PRIORITY
ERDA HQ GERMANTOWN MD PRIORITY
INFO AMEMBASSY PARIS
AMEMBASSY BONN
AMEMBASSY BRUSSELS
AMEMBASSY TOKYO

C O N F I D E N T I A L LONDON 05022

E.O. 11652: GDS
TAGS: ENRG TECH FR BE JA UK FRG
SUBJECT: LMFBR/LWR POWER COSTS

REF: STATE 59863, USERDA DC 211545Z

1. INFORMATION WHICH FOLLOWS HAS BEEN PROVIDED ON AN INFORMAL BASIS BY HMG SOURCES. INASMUCH AS THE UK DOES NOT HAVE ANY LWRS WHATSOEVER THE ONLY FIGURES PROVIDED RELATE TO FAST BREEDER REACTORS. BEGIN TEXT:

2. THE OVERALL COST OF A COMMERCIAL-SCALE DEMONSTRATION FAST REACTOR (CFR) WOULD BE MADE UP OF THE COST OF CONTINUING R AND D ON FAST REACTOR TECHNOLOGY GENERALLY (INCLUDING R AND D IN DIRECT SUPPORT OF THE CFR); THE SUPPORT NECESSARY TO INDUSTRY TO HELP LAUNCH THE SYSTEM; THE COSTS OF CONSTRUCTING ANCILLARY FACILITIES SUCH AS THE ASSOCIATED FUEL PLANTS; AND THE COSTS OF THE CFR STATION ITSELF.

CONFIDENTIAL

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PAGE 02 LONDON 05022 251859Z

3. IT IS NOT OF COURSE POSSIBLE TO BE SURE ABOUT THE COSTS OF A CFR SINCE THERE IS NO FINAL DESIGN AVAILABLE. THE UNITED KINGDOM ATOMIC ENERGY AUTHORITY (AEA), HOWEVER, CONSIDER THAT THEIR EXPERIENCE WITH THE PROTOTYPE FAST REACTOR, IS RELEVANT TO ASSESSMENTS OF THE COSTS OF A L,300 MW CFR STATION. FURTHER, THOUGH THE NUCLEAR

STEAM SUPPLY SYSTEM FOR THE FAST REACTOR IS UNIQUE, OTHER EQUIPMENT WOULD BE COMPARABLE WITH THAT USED IN THERMAL SYSTEMS. AT THIS STAGE, THE AEA'S OWN VIEW IS THAT, DEPENDING ON THE ALLOWANCES MADE FOR CONTINGENCIES, THE CAPITAL COSTS OF THE FIRST CFR COULD BE ABOUT 700 MILLION TO 770 MILLION POUNDS STERLING (IN 1976 PRICES) BEFORE TAKING INTO ACCOUNT THE VALUE OF THE ELECTRICITY IT WOULD GENERATE. IT IS EXPECTED THAT AFTER THE FIRST FEW YEARS OF OPERATION, WHEN IT HAD DEMONSTRATED ITS RELIABILITY, THE REACTOR'S OPERATING COSTS WOULD BE MORE THAN COVERED BY THIS VALUE.

4. THE AEA CONSIDER THAT THE OTHER COSTS INVOLVED IN THE WHOLE FAST REACTOR PROGRAMME, OVER THE PERIOD DURING WHICH THE FIRST CFR WAS BEING BUILT AND BROUGHT INTO FULL OPERATION, COULD BE OF THE SAME ORDER OF MAGNITUDE AS THE CAPITAL COST OF THE STATION ITSELF. THE TOTAL OUTLAY OVER A PERIOD OF A DOZEN YEARS OR SO COULD THEREFORE BE SOME 1,600 MILLION TO 1,700 MILLION POUNDS STERLING, AGAIN BEFORE TAKING INTO ACCOUNT THE VALUE OF THE ELECTRICITY GENERATED.

5. TOTAL EXPENDITURE SO FAR BY THE AEA ON FAST REACTOR R AND D IN DIRECT SUPPORT OF THE NUCLEAR POWER PROGRAMME, INCLUDING CONSTRUCTION AND OPERATION OF THE PROTOTYPE FAST REACTOR AT DOUNREAY, IS ESTIMATED AT ABOUT 385 MILLION POUNDS STERLING, NET HISTORIC COST. IT IS NOT POSSIBLE TO BE PRECISE ABOUT EXPENDITURE IN FUTURE YEARS, BUT EXPENDITURE THIS YEAR IS RUNNING AT

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PAGE 03 LONDON 05022 251859Z

AN ANNUAL RATE OF ABOUT 45 TO 50 MILLION POUNDS STERLING. END TEXT

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Message Attributes

Automatic Decaptioning: X
Capture Date: 01-Jan-1994 12:00:00 am
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: INDUSTRY, ENERGY, NUCLEAR POWER PLANTS, PROGRAMS (PROJECTS)
Control Number: n/a
Copy: SINGLE
Sent Date: 25-Mar-1977 12:00:00 am
Decaption Date: 01-Jan-1960 12:00:00 am
Decaption Note:
Disposition Action: RELEASED
Disposition Approved on Date:
Disposition Case Number: n/a
Disposition Comment: 25 YEAR REVIEW
Disposition Date: 22 May 2009
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
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Enclosure: n/a
Executive Order: GS
Errors: N/A
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From: LONDON
Handling Restrictions: n/a
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Legacy Key: link1977/newtext/t19770322/aaaaasym.tel
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Litigation History:
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Original Classification: CONFIDENTIAL
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TAGS: ENRG, TECH, FR, BE, JA, UK, GE
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